

## Author Index of Volume 153

Dawson, P.R. see Kumar, A.	259–302
Donzelli, P.S. and Spilker, R.L. A contact finite element formulation for biological soft hydrated tissues	63– 79
Duarte, C.A.M. see Oden, J.T.	117–126
Hauke, G. and Hughes, T.J.R. A comparative study of different sets of variables for solving compressible and incompressible flows	1– 44
Hiremath, S.V. see Rathod, H.T.	81–106
Hughes, T.J.R. see Hauke, G.	1– 44
Ito, T. see Terada, K.	223–257
Kikuchi, N. see Terada, K.	223–257
Kumar, A. and Dawson, P.R. Modeling crystallographic texture evolution with finite elements over neo-Euclidean orientation spaces	259–302
Liu, K., Xie, S. and Sun, H. Reflection characteristics of torsional waves in transversely isotropic stepped bars	107–115
Maubach, J.M. and Rabier, P.J. Boundary-hybrid finite elements and a posteriori error estimation	167–193
Mer, K. Variational analysis of a mixed element/volume scheme with fourth-order viscosity on general triangulations	45– 62
Oden, J.T., Duarte, C.A.M. and Zienkiewicz, O.C. A new cloud-based hp finite element method	117–126
Oliver, G.J. see Ronda, J.	195–221
Rabier, P.J. see Maubach, J.M.	167–193
Rathod, H.T. and Hiremath, S.V. Boundary integration of polynomials over an arbitrary linear tetrahedron in Euclidean three-dimensional space	81–106
Ronda, J. and Oliver, G.J. Comparison of applicability of various thermo-viscoplastic constitutive models in modelling of welding	195–221
Spilker, R.L. see Donzelli, P.S.	63– 79
Sun, H. see Liu, K.	107–115
Tadi, M. Computational algorithm for controlling a Timoshenko beam	153–165
Teixeira de Freitas, J.A. Formulation of elastostatic hybrid-Trefftz stress elements	127–151

- Terada, K., Ito, T. and Kikuchi, N. Characterization of the mechanical behaviors of solid-fluid mixture by the homogenization method 223-257
- Xie, S. see Liu, K. 107-115
- Zienkiewicz, O.C. see Oden, J.T. 117-126

## Subject Index of Volume 153

### *Boundary layers*

- A comparative study of different sets of variables for solving compressible and incompressible flows, G. Hauke and T.J.R. Hughes 1– 44

### *Control theory*

- Computational algorithm for controlling a Timoshenko beam, M. Tadi 153–165

### *Coupled problems*

- Comparison of applicability of various thermo-viscoplastic constitutive models in modelling of welding, J. Ronda and G.J. Oliver 195–221

### *Dynamics*

- Reflection characteristics of torsional waves in transversely isotropic stepped bars, K. Liu, S. Xie and H. Sun 107–115

### *Elasticity*

- A new cloud-based *hp* finite element method, J.T. Oden, C.A.M. Duarte and O.C. Zienkiewicz 117–126  
 Formulation of elastostatic hybrid-Trefftz stress elements, J.A. Teixeira de Freitas 127–151

### *Finite difference methods*

- Variational analysis of a mixed element/volume scheme with fourth-order viscosity on general triangulations, K. Mer 45– 62

### *Finite element and matrix methods*

- A comparative study of different sets of variables for solving compressible and incompressible flows, G. Hauke and T.J.R. Hughes 1– 44  
 Variational analysis of a mixed element/volume scheme with fourth-order viscosity on general triangulations, K. Mer 45– 62  
 A contact finite element formulation for biological soft hydrated tissues, P.S. Donzelli and R.L. Spilker 63– 79  
 Boundary integration of polynomials over an arbitrary linear tetrahedron in Euclidean three-dimensional space, H.T. Rathod and S.V. Hiremath 81–106  
 A new cloud-based *hp* finite element method, J.T. Oden, C.A.M. Duarte and O.C. Zienkiewicz 117–126  
 Formulation of elastostatic hybrid-Trefftz stress elements, J.A. Teixeira de Freitas 127–151  
 Computational algorithm for controlling a Timoshenko beam, M. Tadi 153–165  
 Boundary-hybrid finite elements and a posteriori error estimation, J.M. Maubach and P.J. Rabier 167–193

Characterization of the mechanical behaviors of solid–fluid mixture by the homogenization method, K. Terada, T. Ito and N. Kikuchi	223–257
Modeling crystallographic texture evolution with finite elements over neo-Euclidean orientation spaces, A. Kumar and P.R. Dawson	259–302
<i>Fluid mechanics</i>	
A comparative study of different sets of variables for solving compressible and incompressible flows, G. Hauke and T.J.R. Hughes	1– 44
Variational analysis of a mixed element/volume scheme with fourth-order viscosity on general triangulations, K. Mer	45– 62
Characterization of the mechanical behaviors of solid–fluid mixture by the homogenization method, K. Terada, T. Ito and N. Kikuchi	223–257
<i>General Rayleigh–Ritz and Galerkin techniques</i>	
A comparative study of different sets of variables for solving compressible and incompressible flows, G. Hauke and T.J.R. Hughes	1– 44
Formulation of elastostatic hybrid-Trefftz stress elements, J.A. Teixeira de Freitas	127–151
<i>Incompressible and near incompressible media</i>	
A comparative study of different sets of variables for solving compressible and incompressible flows, G. Hauke and T.J.R. Hughes	1– 44
<i>Matrix calculus</i>	
Boundary integration of polynomials over an arbitrary linear tetrahedron in Euclidean three-dimensional space, H.T. Rathod and S.V. Hiremath	81–106
<i>Nonlinear mechanics</i>	
A comparative study of different sets of variables for solving compressible and incompressible flows, G. Hauke and T.J.R. Hughes	1– 44
A contact finite element formulation for biological soft hydrated tissues, P.S. Donzelli and R.L. Spilker	63– 79
<i>Numerical solution procedures</i>	
A comparative study of different sets of variables for solving compressible and incompressible flows, G. Hauke and T.J.R. Hughes	1– 44
A contact finite element formulation for biological soft hydrated tissues, P.S. Donzelli and R.L. Spilker	63– 79
Boundary integration of polynomials over an arbitrary linear tetrahedron in Euclidean three-dimensional space, H.T. Rathod and S.V. Hiremath	81–106
Reflection characteristics of torsional waves in transversely isotropic stepped bars, K. Liu, S. Xie and H. Sun	107–115
A new cloud-based <i>hp</i> finite element method, J.T. Oden, C.A.M. Duarte and O.C. Zienkiewicz	117–126
Formulation of elastostatic hybrid-Trefftz stress elements, J.A. Teixeira de Freitas	127–151
Computational algorithm for controlling a Timoshenko beam, M. Tadi	153–165
Boundary-hybrid finite elements and a posteriori error estimation, J.M. Maubach and P.J. Rabier	167–193
Characterization of the mechanical behaviors of solid–fluid mixture by the homogenization method, K. Terada, T. Ito and N. Kikuchi	223–257

*Phase changes*

- Modeling crystallographic texture evolution with finite elements over neo-Euclidean orientation spaces, A. Kumar and P.R. Dawson 259-302

*Plasticity*

- Modeling crystallographic texture evolution with finite elements over neo-Euclidean orientation spaces, A. Kumar and P.R. Dawson 259-302

*Solutions of ordinary and partial differential equations*

- A comparative study of different sets of variables for solving compressible and incompressible flows, G. Hauke and T.J.R. Hughes 1- 44  
 A new cloud-based *hp* finite element method, J.T. Oden, C.A.M. Duarte and O.C. Zienkiewicz 117-126  
 Formulation of elastostatic hybrid-Trefftz stress elements, J.A. Teixeira de Freitas Boundary-hybrid finite elements and a posteriori error estimation, J.M. Maubach and P.J. Rabier 127-151  
 167-193

*Structural mechanics*

- Formulation of elastostatic hybrid-Trefftz stress elements, J.A. Teixeira de Freitas Characterization of the mechanical behaviors of solid-fluid mixture by the homogenization method, K. Terada, T. Ito and N. Kikuchi 127-151  
 223-257

*Subsonic flow*

- A comparative study of different sets of variables for solving compressible and incompressible flows, G. Hauke and T.J.R. Hughes 1- 44

*Supersonic flow*

- A comparative study of different sets of variables for solving compressible and incompressible flows, G. Hauke and T.J.R. Hughes 1- 44

*Transonic flow*

- A comparative study of different sets of variables for solving compressible and incompressible flows, G. Hauke and T.J.R. Hughes 1- 44

*Transport phenomena*

- Variational analysis of a mixed element/volume scheme with fourth-order viscosity on general triangulations, K. Mer 45- 62

*Viscous flow*

- A comparative study of different sets of variables for solving compressible and incompressible flows, G. Hauke and T.J.R. Hughes 1- 44

*Wave motion*

- Reflection characteristics of torsional waves in transversely isotropic stepped bars, K. Liu, S. Xie and H. Sun 107-115



